



**ROANOKE CITY  
PUBLIC SCHOOLS**

*Strong Students. Strong Schools. Strong City.*

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August 15, 2022

**IFB 3090**

**RUFFNER PROFESSIONAL DEVELOPMENT AND  
OPERATIONS CENTER REPURPOSING SERVICES**

Addendum #6

**This addendum provides answers to questions received from contractors as of August 9, 2022, revises several specification sections, and includes the following revised Plan sheets:**

**G1, G2, A1.4, A1.303, K-100, K-200, and M4.2**

**The bid closing date and time remains as Thursday, August 18<sup>th</sup>, 2022 at 3:00 PM.**

**General Clarification in response to email:**

I requested the form of agreement back on 6/27/22. Will this be provided prior to bid? Unless we hear otherwise, we will assume an unmodified AIA A101-2017 will be paired with the AIA A201-2017 General Conditions referenced in addendum #3

**RESPONSE:**

**Text from Addendum #3 –**

*“PROJECT MANUAL, SPECIFICATION SECTION 005000 – CONTRACTING FORMS AND SUPPLEMENTS:*

*OMIT:*

*1) Part 1 General; Section 2.03; paragraph A.*

*PROJECT MANUAL, SPECIFICATION SECTION 007200 GENERAL CONDITIONS:*

REVISE:

1) *Part 1 General; Section 1.2; paragraph A as follows:*

*The General Conditions applicable to this contract are included by reference as if bound herein: AIA Document A201-2017, General Conditions of the Contract for Construction.”*

**The form of agreement will be the standard Roanoke City Public Schools Contract. General Conditions will be AIA Document A201-2017 as noted in Addendum #3.**

## ADDENDUM # 6



DATE: August 15, 2022  
PROJECT: RCPS Career and Technical Education Center  
TO: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated June 17, 2022 as noted below. Acknowledge receipt of this addendum in the space on the Bid Proposal. Failure to do so may subject bidder to disqualification.

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### GENERAL:

**ADD** the following note 3 to General New Work Notes on Sheet A1.103:

3. Wall Partition Type 5 applies to ALL walls adjacent to stairs and landings within ALL stairwells.

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### PROJECT MANUAL:

#### PROJECT MANUAL – TABLE OF CONTENTS

##### REMOVE:

- 1) Specification Section 074293 Metal Soffit Panels

##### INSERT:

- 1) Specification Section 074293 Metal Ceiling and Soffit Panels (Addendum 6)

##### REPLACE:

- 1) Specification Section 074213.13 Formed Metal Wall Panels

##### WITH:

- 1) Specification Section 074213.13 Formed Metal Wall Panels (Addendum 6)

**PROJECT DRAWINGS:**

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**PROJECT DRAWINGS**

**REPLACE:**

- i. Replace following drawings with the revised drawings noted in Revision table as "Revision 6, 8/11/22, Addendum 6" included in Appendix A within this Addendum:

**G1**

**G2**

**A1.4**

**A1.303**

**K-100**

**M4.2**

**APPENDIX A – REVISED PROJECT DRAWINGS**

























**APPENDIX B – REVISED/ADDED PROJECT SPECIFICATIONS**

SECTION 074213.13 - FORMED METAL WALL PANELS (ADDENDUM 6)

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Concealed-fastener, lap-seam solid metal wall panels.
2. Perforated Metal Screen Wall System over structural support framing: Single-skin exposed fastener perforated metal wall panels.

B. Related Requirements:

1. Section 051200 - "Structural Steel Framing" for structural members supporting metal screen wall system.

1.2 REFERENCES

A. American Architectural Manufacturer's Association (AAMA):

1. AAMA 620 - Voluntary Specification for High Performance Organic Coatings on Coil Coated Architectural Aluminum Substrates.

B. American Society of Civil Engineers (ASCE):

1. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.

C. ASTM International (ASTM):

1. ASTM A 653 - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
2. ASTM A 666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
3. ASTM B 209 - Specification for Aluminum and Aluminum Alloy Sheet and Plate.
4. ASTM C 754 - Specification for Installation of Steel Framing Members to Receive Screw Attached Gypsum Panel Products.
5. ASTM E 72 - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.

D. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA):

1. Architectural Sheet Metal Manual.



### 1.3 ACTION SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.
  - 1. Concealed and exposed-fastener, lap-seam metal wall panels.
- B. Shop Drawings:
  - 1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
  - 2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than **1-1/2 inches per 12 inches (1:10)**.
- C. Samples for Verification: For each type of exposed finish, prepared on Samples of size indicated below:
  - 1. Solid and Perforated Metal Panels: **12 inches (305 mm)** long by actual panel width. Include fasteners, closures, and other metal panel accessories.

### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For concealed and exposed-fastener, lap-seam metal wall panels, for tests performed by a qualified testing agency.
- C. Field quality-control reports.
- D. Manufacturer's warranty: Submit sample warranty.

### 1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For metal panels to include in maintenance manuals.

### 1.6 QUALITY ASSURANCE

- A. Manufacturer/Source: Provide each type of metal wall panel and panel accessories from a single manufacturer.
- B. Manufacturer Qualifications: Approved manufacturer listed in this Section with minimum 10 years experience in manufacture of similar products in successful use in similar applications.
- C. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.
- B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.
- C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.
- D. Retain strippable protective covering on metal panels during installation.

1.8 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

1.9 COORDINATION

- A. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Structural failures including rupturing, cracking, or puncturing.
    - b. Deterioration of metals and other materials beyond normal weathering.
  - 2. Warranty Period: Two years from date of Substantial Completion.
- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
  - 1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
    - a. Color fading more than 5 Delta E units when tested according to ASTM D2244.
    - b. Chalking in excess of a No. 8 rating when tested according to ASTM D4214.

- c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
2. Finish Warranty Period: 20 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS – SOLID METAL WALL PANELS

- A. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E1592:
  1. Wind Loads: As required by all applicable building codes for location.
  2. Deflection Limits: For wind loads, no greater than 1/240 of the span.
- B. Air Infiltration: Air leakage of not more than **0.06 cfm/sq. ft. (0.3 L/s per sq. m)** when tested according to ASTM E283 at the following test-pressure difference:
  1. Test-Pressure Difference: **1.57 lbf/sq. ft. (75 Pa)**.
- C. Water Penetration under Static Pressure: No water penetration when tested according to ASTM E331 at the following test-pressure difference:
  1. Test-Pressure Difference: **2.86 lbf/sq. ft. (137 Pa)**.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
  1. Temperature Change (Range): **120 deg F (67 deg C)**, ambient; **180 deg F (100 deg C)**, material surfaces.

### 2.2 PERFORMANCE REQUIREMENTS – PERFORMATED METAL SCREEN WALL PANELS

- A. General: Provide metal wall panel assemblies meeting performance requirements as determined by application of specified tests by a qualified testing agency on manufacturer's standard assemblies.
- B. Structural Performance: Provide metal wall panel assemblies capable of withstanding the effects of indicated loads and stresses within limits and under conditions indicated, per ASTM E 72:
  1. Wind Loads: Determine loads based on uniform pressure, importance factor, exposure category, and basic wind speed for project location.



2. Limits of Deflection: Metal wall panel assembly shall withstand scheduled wind pressure with the following allowable deflection:
    - a. Maximum allowable deflection
      - 1) Single Skin Panels greater than 1-inch (25-mm) in Depth: Limited to L/120 deflection of panel perimeter normal to plane of wall.
  3. Secondary Metal Framing: Design secondary metal framing for metal wall panel assembly according to AISI's "Standard for Cold-Formed Steel Framing - General Provisions."
- C. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures. Accommodate movement of support structure caused by thermal expansion and contraction.

### 2.3 CONCEALED-FASTENER, LAP-SEAM SOLID METAL WALL PANELS

- A. Provide factory-formed metal panels designed to be field assembled by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using concealed fasteners and factory-applied sealant in side laps. Include accessories required for weathertight installation.
- B. Concealed-Fastener Metal Wall Panels: Formed with raised, trapezoidal major ribs and intermediate stiffening ribs symmetrically spaced between panel edges.
  1. **Manufacturers:** Subject to compliance with requirements, provide products by one of the following:
    - a. [Berridge Manufacturing Company](#).
    - b. [CENTRIA, a Nucor Brand](#).
    - c. [Morin - A Kingspan Group Company](#).
    - d. PAC-CLAD.
  2. Basis of Design: Berridge HR-16 or PAC-CLAD Precision Series Highline profile
  3. Aluminum Sheet: Coil-coated sheet, **ASTM B209 (ASTM B209M)**, alloy as standard with manufacturer, with temper as required to suit forming operations and structural performance required.
    - a. Thickness: **0.040 inch (1.02 mm)**.
    - b. Surface: Smooth, flat finish.
    - c. Exterior Finish: Two-coat fluoropolymer.
    - d. Color: As selected by Architect from manufacturer's full range.
  4. Panel Coverage: **16 inches**.
  5. Panel Height: **1.25 inches (32 mm)**.

## 2.4 SOLID METAL WALL PANEL MISCELLANEOUS MATERIALS

- A. Miscellaneous Metal Subframing and Furring: ASTM C645, cold-formed, metallic-coated steel sheet, ASTM A653/A653M, G90 (Z275) hot-dip galvanized coating designation or ASTM A792/A792M, Class AZ50 (Class AZM150) aluminum-zinc-alloy coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.
- B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.
1. Closures: Provide closures at eaves and rakes, fabricated of same metal as metal panels.
  2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
  3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch- (25-mm-) thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.
- C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, bases, drips, sills, storefront heads, jambs, corners, endwalls, framed openings, fasciae, reveals, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.
- D. Panel Fasteners: Self-tapping screws designed to withstand design loads. Provide exposed fasteners with heads matching color of metal panels by means of plastic caps or factory-applied coating. Provide EPDM or PVC sealing washers for exposed fasteners.
- E. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.
1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.
  2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
  3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

## 2.5 SOLID METAL WALL PANEL FABRICATION

- A. Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

- B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.
- C. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.
- D. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.
  - 1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
  - 2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
  - 3. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
  - 4. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
  - 5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
  - 6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.
    - a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal wall panel manufacturer for application but not less than thickness of metal being secured.

## 2.6 EXPOSED-FASTENER, LAP-SEAM PERFORATED METAL SCREEN WALL PANELS

- A. Provide factory-formed perforated metal screen wall panels designed to be field assembled by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using exposed fasteners.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. CENTRIA, a Nucor Brand.
    - b. Berridge Manufacturing Company.
    - c. Morin - A Kingspan Group Company.
    - d. PAC-CLAD.
  - 2. Basis of Design Product: CENTRIA, Style-Rib.
    - a. Panel Coverage: 36 inches (914 mm).
    - b. Panel Depth: 1.50 inches (38 mm).
    - c. Rib Spacing: 5 at 7.2 inches (183 mm) o.c.
    - d. Panel Pattern:



- 1) Pattern and Perforation: Staggered pattern, 1/8 inch (3 mm) perforations at 7/32 inch (6 mm) spacing, with 30 percent open area.

e. Material:

- 1) Aluminum Face Sheet: Smooth surface coil-coated, ASTM B209, 3003-H14 alloy, 0.040 inch (1.0 mm) nominal thickness.

## 2.7 PERFORATED METAL SCREEN WALL PANEL ACCESSORIES

- A. Metal Wall Panel Accessories, General: Provide complete metal wall panel assembly incorporating trim, copings, parapet caps, sills, and inside and outside corners. Fabricate accessories in accordance with SMACNA Manual. Provide manufacturer's factory-formed clips, shims, and caps for a complete installation.
- B. Fasteners: Self-tapping 300 series stainless steel screws, No. 14 minimum, hex-head, and other acceptable fasteners recommended by panel manufacturer.

## 2.8 SECONDARY METAL FRAMING

- A. Miscellaneous Framing Components, General: Cold-formed metallic-coated steel sheet, ASTM A 653/A 653M, G90 (Z180).
  1. Hat Channels: 0.053 inch/16 ga. (1.34 mm) minimum.
  2. Sill Channels: 0.053 inch/16 ga. (1.34 mm) minimum.

## 2.9 FINISHES

- A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Solid Aluminum Wall Panels and Accessories:
  1. Two-Coat Fluoropolymer: AAMA 2605. Fluoropolymer finish containing not less than 70 percent polyvinylidene fluoride (PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
  2. Color: As selected by Architect from manufacturer's standard colors.
- D. Perforated Aluminum Wall Panels and Accessories:
  1. Fluoropolymer Two-Coat System: 0.8 mil nominal primer with 0.8 mil nominal 70 percent PVDF fluoropolymer color coat, AAMA 620. Prepare, pretreat, and apply

coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

2. Color: As selected by Architect from manufacturer's standard colors.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the Work.
  1. Examine wall framing to verify that girts, angles, channels, studs, and other structural panel support members and anchorage have been installed within alignment tolerances required by metal wall panel manufacturer.
  2. Examine wall sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal wall panel manufacturer.
    - a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
- B. Examine roughing-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C754 and metal panel manufacturer's written recommendations.

### 3.3 INSTALLATION OF METAL PANELS

- A. Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
  1. Shim or otherwise plumb substrates receiving metal panels.
  2. Flash and seal solid metal wall panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.

3. Install screw fasteners in predrilled holes.
  4. Locate and space fastenings in uniform vertical and horizontal alignment.
  5. Install flashing and trim as solid metal wall panel work proceeds.
  6. Locate solid metal wall panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
  7. Align bottoms of solid metal wall panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
  8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels at solid metal wall panels.
- B. Fasteners:
1. Aluminum Panels: Use aluminum or stainless steel fasteners.
- C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.
- D. Lap-Seam Metal Panels: Fasten metal panels to supports with fasteners at each lapped joint at location and spacing recommended by manufacturer.
1. Lap ribbed or fluted sheets one full rib. Apply panels and associated items true to line for neat and weathertight enclosure.
  2. Provide metal-backed washers under heads of exposed fasteners bearing on weather side of metal panels.
  3. Locate and space exposed fasteners in uniform vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of washer.
  4. Install screw fasteners with power tools having controlled torque adjusted to compress washer tightly without damage to washer, screw threads, or panels. Install screws in predrilled holes.
  5. Flash and seal solid metal wall panels with weather closures at perimeter of all openings.
- E. Accessory Installation: Install accessories with positive anchorage to building and provide weathertight mounting where required, and provide for thermal expansion. Coordinate installation with flashings and other components.
1. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal wall panel manufacturer; or, if not indicated, provide types recommended by metal panel manufacturer.
- F. Solid Metal Wall Panel Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that are permanently watertight.
1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof performance.

2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet (3 m) with no joints allowed within 24 inches (610 mm) of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with mastic sealant (concealed within joints).

#### 3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect completed metal wall panel installation, including accessories.
- B. Remove and replace metal wall panels where tests and inspections indicate that they do not comply with specified requirements.
- C. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.
- D. Prepare test and inspection reports.

#### 3.5 CLEANING AND PROTECTION

- A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.
- B. After metal panel installation, clear weep holes and drainage channels of obstructions, dirt, and sealant.
- C. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074213.13



SECTION 074293 - METAL CEILING AND SOFFIT PANELS (ADDENDUM 6)

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metal ceiling and soffit panels at main entrance canopy and cantilevering exterior entry door canopies.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Metal ceiling and soffit panels.

B. Product Data Submittals:

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.

C. Shop Drawings:

1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
2. Accessories: Include details of flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches (1:10).

D. Samples for Initial Selection: For each type of metal panel indicated with factory-applied color finishes.

1. Include similar Samples of trim and accessories involving color selection.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For each product, tests performed by a qualified testing agency.

C. Sample Warranties: Provide sample of manufacturer's warranty.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For metal panels to include in maintenance manuals.

#### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
- B. UL-Certified, Portable Roll-Forming Equipment: UL-certified, portable roll-forming equipment capable of producing metal panels warranted by manufacturer to be the same as factory-formed products. Maintain UL certification of portable roll-forming equipment for duration of work.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.
- B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.
- C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Protect face of panels. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.
- D. Retain strippable protective covering on metal panels during installation.

#### 1.7 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

#### 1.8 COORDINATION

- A. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of walls, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

#### 1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
    - a. Structural failures including rupturing, cracking, or puncturing.
    - b. Deterioration of metals and other materials beyond normal weathering.
  2. Warranty Period: Two years from date of Substantial Completion.
- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
    - a. Color fading more than 5 Delta E units when tested according to ASTM D2244.
    - b. Chalking in excess of a No. 8 rating when tested according to ASTM D4214.
    - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
  2. Finish Warranty Period: 20 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E1592:
1. Wind Loads: As applicable by local wind loading requirements.
  2. Deflection Limits: For wind loads, no greater than 1/180 of the span.
- B. Air Infiltration: Air leakage of not more than 0.06 cfm/sq. ft. (0.3 L/s per sq. m) when tested according to ASTM E283 at the following test-pressure difference:
1. Test-Pressure Difference: 1.57 lbf/sq. ft. (75 Pa).
- C. Water Penetration under Static Pressure: No water penetration when tested according to ASTM E331 at the following test-pressure difference:
1. Test-Pressure Difference: 2.86 lbf/sq. ft. (137 Pa).
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

## 2.2 METAL CEILING AND SOFFIT PANELS

- A. Provide metal ceiling and soffit panels designed to be installed by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using concealed fasteners. Include accessories required for weathertight installation.
- B. Flush-Profile Metal Soffit Panels: Solid panels formed with vertical panel edges and a flat pan between panel edges; with flush joint between panels.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following or equal:
    - a. MetalWerks
  - 2. Basis of Design:
    - a. Product: MetalWerks Canopy Cladding
    - b. Manufacturer: MetalWerks; 200 Gale Lane, Kennett Square, Pa. 19348
    - c. Material: 3003-H14 aluminum alloy-temper
    - d. Thickness 0.125" (3.18 mm) standard. Consult with manufacturer for options.
    - e. Surface: Smooth, flat finish.
    - f. Exterior Finish: Kynar® or architectural TGIC Polyester powder coating
    - g. Corner Type: Sharp
    - h. Color: As selected by Architect from manufacturer's full range.
  - 3. Panel Sizes: As indicated in drawings.
  - 4. Panel Height: Minimum required for indicated spans.

## 2.3 MISCELLANEOUS MATERIALS

- A. Miscellaneous Metal Subframing and Furring: ASTM C645, cold-formed, metallic-coated steel sheet, ASTM A653/A653M, G90 (Z275) hot-dip galvanized coating designation or ASTM A792/A792M, Class AZ50 (Class AZM150) aluminum-zinc-alloy coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.
- B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.
- C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Finish flashing and trim with same finish system as adjacent metal panels.
- D. Panel Fasteners: Provide concealed fasteners as recommended by cladding manufacturer.
- E. Panel Sealants: Provide sealant types recommended by manufacturer that are compatible with and match color of panel materials, are nonstaining, and do not damage panel finish.



1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.
2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

## 2.4 FABRICATION

- A. Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
- B. On-Site Fabrication: Subject to compliance with requirements of this Section, metal panels may be fabricated on-site using UL-certified, portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate according to equipment manufacturer's written instructions and to comply with details shown.
- C. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

## 2.5 FINISHES

- A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Exterior Finish: Kynar® or architectural TGIC Polyester powder coating

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the Work.

1. Examine framing to verify that girts, angles, channels, studs, and other structural panel support members and anchorage have been installed within alignment tolerances required by metal panel manufacturer.
  2. Examine sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal panel manufacturer.
- B. Examine roughing-in for components and systems penetrating metal ceiling and soffit panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C754 and metal ceiling and soffit panel manufacturer's written recommendations.

### 3.3 INSTALLATION OF METAL CEILING AND SOFFIT PANELS

- A. Install metal ceiling and soffit panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
1. Shim or otherwise plumb substrates receiving metal panels.
  2. Install screw fasteners in predrilled holes.
  3. Locate and space fastenings in uniform vertical and horizontal alignment.
  4. Install flashing and trim as metal panel work proceeds.
  5. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.
- B. Fasteners:
1. Aluminum Panels: Use concealed aluminum or stainless-steel fasteners.
- C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.
- D. Metal Ceiling and Soffit Panel Joints: Fasten metal panels to supporting structure with concealed fasteners at each lapped joint at location and spacing indicated. Where not indicated, fasten panels to substrate or framing as recommended by manufacturer.
1. Apply panels and associated items true to line for neat and weathertight enclosure..
  2. Locate and space fasteners in uniform vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of washer.
  3. Install screw fasteners with power tools having controlled torque adjusted to compress washer tightly without damage to washer, screw threads, or panels. Install screws in predrilled holes.

- E. Watertight Installation:
  - 1. Apply a continuous ribbon of sealant to seal joints between vertical panel faces as indicated. Use sealant as recommend by manufacturer to make panels watertight.
- F. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.
  - 1. Install components required for a complete metal ceiling and soffit panel system including trim, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal ceiling and soffit panel manufacturer with finish to match adjacent panel where applicable; or, if not indicated, provide types recommended by metal panel manufacturer.

### 3.4 CLEANING AND PROTECTION

- A. Remove temporary protective coverings and strippable films, if any, as metal ceiling and soffit panels are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of metal ceiling and soffit panel installation, clean finished surfaces as recommended by manufacturer. Maintain in a clean condition during construction.
- B. After metal ceiling and soffit panel installation, clear weep holes and drainage channels of obstructions, dirt, and sealant.
- C. Replace metal ceiling and soffit panel that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074293

**APPENDIX C – RESPONSES TO REQUESTS FOR INFORMATION RECEIVED AS OF 8/9/22**

RESPONSES TO QUESTIONS - ADDENDUM 6				
Project:	RCPS Ruffner Career and Technical Education Center			
Date:	8/15/22			
Question No.	Drawing	Spec Section	Question	Answer
1	C09		Please advise the asphalt type at the "Loading / Turnaround Space"	Heavy Duty pavement section shall be used here. For reference, dashed line separates between heavy duty and standard duty sections. See details sheet C17.
2	C09		Please advise the asphalt type at the "Building Trades Loading/Staging Area"	Standard duty pavement to be used on building side of dashed line.
3	C09		Please confirm that the parking spaces in the gravel lots are to receive striping.	The gravel parking spaces will not receive striping - they are shown for reference only as to parking space count.
4	C010		Will the design team provide details regarding the construction of the following specialty areas (none provided): Turf Block Project Staging	Please refer to sheet C25 for turf block section detail.
			Planting Beds – Seed	Please install temporary seeding to these areas. Refer to C25 for soil amendment requirements. The intent is for these areas to be teaching areas that key on various turf and reed grasses installed by students.
			Slope Stabilization Exhibit	Also apply temporary seeding at this area. The intent is for this to be a teaching slope that demonstrates various blanket matting types for slope stabilization and seed establishment.
			Prefabricated Greenhouse Structure	Identification of greenhouse on sheet C10 to be revised to read "Greenhouse by others (NIC)".
5	C8		Sheet C08 – Is the intent of the design team to only provide one (1) each of the following (there are two (2) distinct locations receiving EVC's): EVC Disconnect EVC Transformer EVC Panel	Correct. One EVC Disconnect Correct. One EVC Transformer Correct. One EVC Panel
6	C11		There is a note that references a proposed fire hydrant, but no fire hydrant is drawn. Please indicate whether a fire hydrant is to be provided and installed at this location, and what flow said hydrant would require. Proposed water service to said hydrant? None drawn.	There will not be a FH installed at this location - callout is incorrect. No FH service - callout is incorrect.
8	S1.0 and S1.1		The Footing Schedule on Sheet S1.0 call for F2 footings to be 1'0"x5'0"xContinuous. The F2 footing drawn on Sheet S1.1 scales at 5'8" width. Please clarify the footing dimensions for the F2 footing type both on the schedule and at the Front Entrance Canopy.	Do not scale the drawings. Use the information shown in the schedule.
9	S2.3		Note #2, S1.2 – What is the concrete PSI for the 3 1/8" infill? Note 2 incorrectly lists the PSI as a dimension. Please advise.	Use 4000 PSI concrete non - air-entrained with a slump of 4 to 5 inches unless a plastersizer is used. In that case a 4000 psi non air pump mix design shall be submitted for review.
10	K100		K100 – Please specify the type of lockers required for 01 – Student Lockers	Item 1 on sheet K100 is to be omitted
11	K100		K100 – The Equipment List shows Item Number 51 as a Mobile Shelving Unit, Quantity of 1, but the specs call this out as a Spare Number. Please advise	Revised to read "Spare Number"
12	K100		K100 – The Equipment List shows the following, but they don't appear within the specifications (please advise): 33A – Exhaust Hood Main, Quantity: 1 33B – Exhaust Hood Main, Quantity: 1 34A – Fire Suppression System, Quantity: 1 34B – Fire Suppression System, Quantity: 1 35A: Utility Distribution System, Quantity: 1 35B: Utility Distribution System, Quantity: 1	Revised to read Items 33, 34 & 35 to match Equipment Schedule and specifications Revised to read Item 33 - Exhaust Hood Main, Quantity 1 Deleted Revised to read Item 34 - Fire Suppression System, Quantity 1 Deleted Revised to read Item 35 - Utility Distribution System, Quantity: 1 Deleted
13		11400	Spec. 114000 – The specification calls for the following, but they don't appear within the Equipment List on Sheet K100 (please advise): 33 – Exhaust Hood, Captive Aire, 6024ND-2-PSP-F, Quantity: 1 34 – Fire Suppression System, Ansul, R102-UL710, Quantity: 1 35 – Utility Distribution System, Captive Aire, UDI, Quantity: 1	Specs are correct, While the Equipment Schedule on Sheet K200 was correct all along, the Equipment List on Sheet K100 has been revised accordingly. Correct Correct Correct
14	A2.1		A2.1 – This drawing calls for the installation of a perforated metal wall screen above the new entrance canopy. Please confirm that Specification Section 108213 – Roof Top Equip. Screens is the correct corresponding specification section for the above referenced perforated metal wall screens.	Specification Section 108213 – Roof Top Equipment Screens is NOT the correct corresponding specification section. See revised specification Section 074213.13 - FORMED METAL WALL PANELS for additional information regarding perforated metal screen wall panels. See above response.
			If the above is confirmed, please clarify whether the wall screen is to be made of perforated metal as noted on the A2.1 drawing OR the specified thermoformed plastic panel as detailed in Spec. Section 108213.	
15	A9.1		4/A9.1 – Regarding the pre-finished metal soffit panels shown in the referenced detail: What product/material is the specification calling for? It only lists the manufacturer but not the product the design calls for.	Specification section 074293 SOFFIT PANELS has been removed and replaced with 074293 - METAL CEILING AND SOFFIT PANELS in attached Addendum 6



RESPONSES TO QUESTIONS - ADDENDUM 6			
Project:	RCPS Ruffner Career and Technical Education Center		
Date:	8/15/22		
Question No.	Drawing	Spec Section	Question
			Answer
			The referenced detail shows that there are soffits in the canopy details, but I have yet to find any illustration depicting soffits on other pages, mainly reflected ceiling or otherwise. Additional drawings/details would be very helpful for quantity takeoff purposes. Subs have stated they can't bid this scope without more detail being provided
16			AWI certification for casework and work doors is specified - is it waived if our installers meet those requirements, but without the actual certification?
17		11000	Section 1.04E of 011000 states that towel and toilet paper dispensers, soap dispensers, and mirrors are OFCI. Section 2.1 of 102800 is titled 'Owner-Furnished and Installed Accessories', and then list soap dispensers, paper towel dispensers, and sanitary napkin dispensers. I would like to note that toilet paper dispensers and mirrors are not listed as OFCI or OFOI in 102800. Please advise which accessories are OFCI and OFOI.
18			Is LEED certification required for this project? LEED is mentioned sporadically in specs 107113, 114000, 312000, 321216 & 321313, however we have not been able to locate a LEED specific spec. Please advise.
19		12200	Is excavation classified, unclassified, or unclassified to subgrade? Spec 012200 states that we are to carry 25CY of unsuitable, 25CY of trench rock and 15CY of mass rock. Per section 1.04A of same spec, we are to carry these costs in our base bid, but also list the unit price on the bid form. There are no places stipulated on the most recent bid form to write in these (3) unit prices; only the one for masonry repairs. Further, section 3.4 of 312000 states that excavation is unclassified to subgrade. Please clarify site classification and when (if any) the unit prices apply.
20		312319	Section 1.3A of 312319 states that dewatering observation wells are part of dewatering allowance. In review of spec 012100, there isn't an allowance for dewatering. Please advise.
21	A7.1		A7.1 - Please advise whether Door 100P is HM or WD.
22	A7.1		A7.1 - There are six (6) hardware types on this sheet that have been marked as "X" - please advise.
23	A7.4		A7.4 - Window tags B & D have options for both Hollow Metal Windows and Alum. Storefront. Please clarify the material type in these redundant window tags.
24	A1.103		A1.103 - There are six (6) un-tagged window types shown on this sheet. Sheet AD1.3, Note #6 has these windows being demolished. Please advise window types.
25	A1.103		A1.103 - Is 2/A1.103 the detail that is intended to be used at the called out "COMPOSITE BRICK/CMU Wall 2/4" PRECAST CONC CAP"? 2/A9.1, as shown, shows a different elevation location. Please advise.
26	A1.105		A1.105 - Corridor 100R shows six (6) identical openings, but only five (5) are being tagged as "C" types. Is the intention to replace five (5) or six (6) openings in this corridor? Sheet AD1.7, Note #6 calls out all six (6) existing windows to be removed.
27	A1.108		A1.108 - In the upper left-hand corner, there is an interior storefront tag that is dubbed "XX" - please advise the storefront type in this location, if any? (Above Office 109A)
28	A1.206		A1.206 - In Stair 3 200AA, there is an interior storefront tag that is dubbed "XX" - please advise the storefront type in this location, if any?
28	A1.203		A1.203 - Top of this sheet (Classroom 205), there are two long window (scaled @ 20' each) that are tagged as "A Hollow Metal Types." These don't correspond to any of the scheduled tags. Appears to me that these SHOULD be Int. Storefront Type F, but are incorrectly tagged. Please advise what window/storefront types are to be in these locations.
29			Please provide a detailed drawing of how the Welding Dust Collector is to be secured to the building structure. I have not seen any revised documents showing additional structural steel for this.
30			Please provide specifications for Screen Walls
31			Addendum 5, Q/A 8 States that the equipment screen walls as shown on A1.4 are to be purchased and installed by the successful bidder and where not pre-purchased with the Trane equipment. Is the Trane equipment the only thing that requires a screen wall, A1.4 does not show the Welding Dust Collector. Based on A1.4 units RTU-24 & 25 have a continuous screen wall. This will have to be free standing and require additional structural support. Please provide drawings.
32			Please clarify that Kitchen Hoods, fire suppression and interlock wiring are by others, not the Mechanical.

Metal soffit panels noted in details 4 and 5 on Sheet A9.1 are located at underside of entire entrance canopy. Soffit panels can also be considered "ceiling" panels. Details 4 and 5 are longitudinal sections along the entire length of canopy. Soffit/Ceiling panels in these details are seen sloping away from viewer. In details 6 and 7, sheet A9.1, soffit/ceiling panels are shown at bottom of

Certification is required.

All toilet accessories specified and not listed in section 2.1 of 102800 are to be Contractor Furnished / Contractor Installed (CF/CI).

LEED Certification is not required on this project.

The site is unclassified to subgrade. See Addendum 3 for modifications to specification section 012200 related to removal of unit prices for unsuitable soil, trench rock and mass rock.

Omit 1.3 ALLOWANCES in SECTION 312319 - DEWATERING.

Wood

If this question is referencing multiple versions of doors 100AA and 100AB, these doors have been omitted from the door schedule, therefore no hardware is required.

Material for window types B and D is aluminum. Multiple tags address opening infill condition at inside face of wall opening and glazing requirements only - See H2 and S2, same sheet for additional details.

If question is referring to windows in courtyard area, these window types are noted on drawings A1.101 and A1.105.

Correct - Detail 2/A1.103 is correct detail. Change A9.1 to A1.103. Change note to read as follows: "COMPOSITE BRICK/CMU WALL WITH 4" PRECAST CONC CAP"

Add window type "C" label to window located between door 100AO and existing elevator shaft/equipment room along Corridor 100R. The existing window is also to be removed and replaced with type "C" window.

This is a new work note label identifying an access door. DELETE this note from drawing A1.108.

Omit/Disregard "XX" notation in Stair 3 on sheet 200AA.

The noted windows should have window types noted as follows: Window located directly plan north above "Classroom 205" is window type "F". Window located directly plan north above "Teaching Lab 205C" is window type "H".

See revised Architectural Sheet A1.4 and M4.2 in Addendum 6. Note that the welding dust collector has been relocated.

See updated specification section 074213.13 - "Formed Metal Wall Panels" for screen wall requirements.

Screen wall systems are to be provided and installed by contractor. The screen wall system is to be provided at all sides of all rooftop HVAC units and the dust collector equipment.

The hoods and fire suppression system will all be handled by the Food Equipment Dealer. The dealer shall verify the fire suppression system is working properly before installation is complete. (Note: If the question centers on the fire suppression system and interlocking connections to the building fire alarm system, contacts are provided in the panel for those connections by others.)

RESPONSES TO QUESTIONS - ADDENDUM 6				
Project:		RCPS Ruffner Career and Technical Education Center		
Date:		8/15/22		
Question No.	Drawing	Spec Section	Question	Answer
33			Please clarify that Dust Collectors' fire suppression and control / interlock wiring are by others, not the Mechanical.	The welding dust collector control is to be by the electrical contractor with coordination with mechanical contractor. A toggle switch to control the relay is required for control of the welding dust collector.
34	A1.101		Sheet A1.101, Note #18 – Install Linear Wood Plank System @ Face of Wall from Ceiling to FF – please advise basis of design / product material for the aforementioned wood plank system.	Utilize same linear wood plank system (Basis of Design: Armstrong Woodworks Lean Veneered Plank ceiling system) for for installation a face of walls. Reference provided drawing details and/or contact Armstrong for additional details if necessary.
35	C08		C08 – Misc. Site Note #2 – Is the intention to have parking bumpers provided at all parking spaces where this isn't curb and gutter? Or are we to only account for parking bumpers as shown throughout the civil drawings?	Install parking bumpers as show on the plans. Disregard miscellaneous note #2.
36	C08		C08 – If parking bumpers are to be provided at every parking space without curb and gutter, are we to account for parking bumpers at all gravel parking spaces?	See response to question 35 above.
37			Storage Room 108I on Sheet ID1.6 shows this room to receive ACT-1 as a ceiling finish. Per A1.306, this same room is to be left as an exposed ceiling. Please clarify the intentions of the design team.	ACT 1 is to be installed @ 9'-0" AFF in room 108I. Please note that both rooms inadvertently labeled as "108I" are to have ACT ceilings. Also note that ACT 1 is to be installed at 9'-0" AFF in rooms 110E and 110 F currently labeled to be painted exposed structure.
38			The scales on all M&P drawings should be checked/confirmed. P2.4 & P4.1 both show scales of 3/16" = 1'-0", however it appears that they are very different. Also, both details on P3.5 show the same scale (3/16" = 1'-0"), but they appear different from one another.	Note the following scale notation revisions: Sheet M2.5, Corridor Plan: Replace the scale notation of 1/4" = 1'-0" with 3/16" = 1'-0". Sheet M3.5, Corridor Plan: Replace the scale notation of 3/16" = 1'-0" with 1/8" = 1'-0". Sheet P2.5, Corridor Plan: Replace the scale notation of 1/4" = 1'-0" with 3/16" = 1'-0". Sheet P3.5, Corridor Plan: Replace the scale notation of 3/16" = 1'-0" with 1/8" = 1'-0". Sheet P4.1, Kitchen Plan: Replace the scale notation of 3/16" = 1'-0" with 1/4" = 1'-0".
39			Please advise locations of visual display units, as we cannot locate them on the drawings.	Provide and install two visual display units per classroom space and one visual display unit within the following rooms: 104A, 104B, 200B, 208A and 208B.
40			Please advise the correct diameter of the new fire service line. It is shown as 6" DIP on Sheet C11, but also shown as 8" DIP on Sheet C23.	The fire line size is 6" diameter.
41			Have all scales been verified on the ID drawings? Below are examples of scale not matching known measurements.	
	ID2.2		ID2.2 Bottom Left has a known measurement of 8". With the 3/16" scale it lays out as a 9'3" wide design.	Scale is correct at 3/16" = 1'-0". Do not scale drawings. Refer to noted dimensions.
	ID2.3		ID2.3 Upper Left has a known measurement of 5'6". With the 1/8" scale it lays out as a 8'2" long design.	Change drawing scale to 3/16" = 1'-0"
	ID2.4		ID2.4 Bottom Left has a known measurement of 8". With the 1/8" scale it lays out as a 12'5" long design.	Change drawing scale to 3/16" = 1'-0"
	ID2.5		ID2.5 Corridor 200O has a known measurement of 8". With the 1/8" scale it lays out as a 12'5" long design.	Change drawing scale to 3/16" = 1'-0"
42	A4.3		For the gang restrooms, the specifications call for two (2) grab bars in each. Elevation 5/A4.3 only shows one (1). Please clarify how many grab bars, and their lengths, are needed in each gang restroom. Typically, we see three (3) grab bars in the handicap stall, as follows:	Detail 5/A4.3 and 8/A4.3 are elevation views of rear wall behind stalls where 36" horiz grab bar above water closet is located and shown. Side elevation of handicap stalls in these views where 42" grab bar is located is not shown. See "Toilet Accessory Mounting Heights", sheet A4.3 for side elevation view where toilet accessories including 42" grab bar are shown. Install vertical grab bars as shown in drawings and noted below.
			One (1) 42" Horizontal Grab Bar	Install at side wall in all handicap stalls and in single toilet rooms. Install as indicated.
			One (1) 36" Horizontal Grab Bar	Install at side wall in all handicap stalls and in single toilet rooms. Install as indicated.
			One (1) 18" Vertical Grab Bar	Install vertical grab bar at all handicap stalls and in single toilet rooms as indicated. Install 18" vertical grab bar at side wall adjacent to water closet 39-41" from rear wall with bottom of grab bar installed 39" to 41" AFF.
43			Patient Toilet 102D – The specifications call for two (2) grab bars in this room, however elevation 3/A4.3 seems to show two (2) additional grab bars in the shower area. Please advise how many grab bars and their dimensions are to be in Patient Toilet 102D.	Total five grab bars are to be provided. Two at the water closet and two within the shower as noted as noted in drawings. Install 18" vertical grab bar at side wall adjacent to water closet 39-41" from rear wall with bottom of grab bar installed 39" to 41" AFF.
44			Patient Toilet 102D – The specifications don't call for a folding shower seat, however elevation 3/A4.3 shows one. Please advise if a shower seat is required here.	Folding shower seat is required.
45			Per specification section 102800, all private use toilet rooms are to receive two (2) grab bars. Per Sheet A4.3, they're to receive three (3) grab bars. Please confirm quantities and dimensions.	A total of three grab bars are required: 36" grab bar behind water closet; 42" grab bar at side of water closet and 18" vertical grab bar also at side wall adjacent to water closet. See responses to question 42 above for details on vertical bar installation.
46	E-501		IN REFERENCE TO SHEET E-501, ONE-LINE RISER DIAGRAM, THERE IS REFERENCE TO TWO ELEVATOR FEEDERS. ONE IS SHOWN AT MDP2, 480V FEED. THE OTHER ONE IS SHOWN FED FROM PANEL LDP3, 208V FEED. THERE APPEARS TO BE ONLY ONE ELEVATOR SHOWN ON DRAWINGS (NEAR CORRIDOR 100R). WHERE IS SECOND ELEVATOR?? ALSO, IF THERE IS ONE ELEVATOR AS MENTIONED, WHICH PANEL FEEDS IT??	Only 1 elevator is required. The feed to the elevator should be the 480 volt feed. The feed from LDP3 should be for the Elevator panel. The elevator panel feeds an AC unit associated with the elevator. We do not know the size of this AC unit so the "elevator Panel" from LDP3 should feed low voltage feeds associated with the elevator.

RESPONSES TO QUESTIONS - ADDENDUM 6				
Project:		RCPS Ruffner Career and Technical Education Center		
Date:		8/15/22		
Question No.	Drawing	Spec Section	Question	Answer
47	E200-E204		REFERENCING SHEETS E200 – E204, THERE IS FEW PLACES ON THE LIGHTING DRAWINGS THAT INDICATE 2X4 FIXTURES ARE TYPE D FIXTURES. ACCORDING TO FIXTURE SCHEDULE, TYPE D IS A 1X4 SURF FIXTURE. WHAT FIXTURE TYPE SHOULD THESE 2X4 FIXTURES BE??	The fixtures indicated as type 2x4 fixtured indicated with a fixture type D should occur in areas where there is no ceiling and the stairwells. We want these fixtures to be the scheduled fixture type D, which is a wide surface mounted LED wrap around.
48	E-402, E-402		COULD THERE BE CLARIFICATION TO LOCATION OF PANEL LDP3?? SHEET E-402 SHOWS IT IN STORAGE 108B. SHEET E-304, SHOWS IT IN ELEC ROOM 200Z, WHICH MAKES MORE SENSE.	Panel LDP should be in storage room 108B. Sheets were modified during addendum when the specifics loads on LDP3 were modified. We felt like this was a better space for LDP3.
49			What is the distance from the utility transformer to the new CT cabinet? I can't locate the transformer on any of the drawings including the civils. Please advise.	Distance from CT cabinet to transformer is approximately 25'
50			I am hearing gear lead times on switchboards is around 50 Weeks after approved submittals. Which can't happen until after the coordination study approximately 30 days from notice to proceed. This will put permanent power to building after substantial completion. Will this be acceptable?	Contractors are to complete all project requirements to meet noted completion date. If necessary, scheduling impacts associated with supply chain issues will be addressed after award.
51	E201		On Sheet E201, in Stair 2(100P) there is a D fixture that is a 2'x4' but in room 103E there are (2) 1'x4' fixtures that are labeled as D. There are other places where the stairwell fixtures aren't labeled at all. There are other stairwell fixtures that are type A so it would make sense that they all would be but we need them to verify this.	Stair fixture with grid should be a type A fixture on 2nd floor. Stair fixture on lower floors will not have grid and should be a type D fixture which is a surface mounted fixture.
52	E202		On SHEET E202, rooms 108E and 108B have no label on the fixtures. Please advise.	Fixtures to be type D fixtures.
53	A1.205		A1.205 – This sheet calls for one (1) Note #4, 14" Dia. Half Round Column Enclosure. However, a full round column enclosure is drawn. Please clarify.	Change note to "2".
54			Storefront I appears on the schedule but not on the drawings. Please advise.	Storefront "I" applies to Door 100AR.
55	K100		Kitchen Equipment Items 8, 9 & 10 are listed as 'Spare Number' in the specs and Sheet K100. On K100, each shows (1) for quantity. Is that a typo?	Yes it is a typo. Sheet K100 to be revised to show "0" in the quantity column for Items 8, 9, & 10. Clouded the change, tagged it as #2.
56		312000	Section 1.8E of 312000 indicates that there is an available geotechnical report. Can that be provided?	An existing geotechnical report was not available/provided nor was a new report prepared for the project. Paragraph 1.08E of section 312000 is to be deleted.
57		11000	Section 1.04 3E 011000 states that we are to limit conduct of work during preparation and administration of SOLs. Is this facility used for testing? If so, which dates/times will the GC not be able to work due to student testing?	Part 1 General; Section 1.04; paragraph E in section 011000 - Summary was omitted as part of Addendum 3.
58		72726	Also, spec 072726 is listed in the table of contents but not included in the project manual.	Section 072726 - "FLUID-APPLIED MEMBRANE AIR BARRIERS" should be removed from Table of Contents.
59	C09		Sheet C09 – We've located five (5) rectangular callouts on this sheet that are designated as "EP" – please advise what these are? Light poles?	"EP" callout is "Edge of Pavement"

END OF ADDENDUM #6